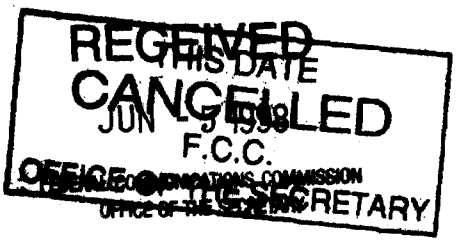
DOCKET FILE COPY ORIGINAL

Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554




In the matter of

| | |
|---|---|
| Returning the full "Primary" Status of the | ) |
| Amateur Radio Service in the 420 TO 450 MHZ | ) |
| spectrum with the existing government users | ) |
| | ) |

To: The Chairman, Federal Communications Commission

---

Petition for Rulemaking

---

Submitted by:

The Radio Society of Central Michigan (RSCM)
4729 Crampton Way
Holt, Michigan 48842-1524
(888) 298-9179

Co-authored by:

William Charles Houlne, WB6BNQ
2732 Grove Street
National City, CA 91950-7605

Date: May 21, 1998

No. of Copies rec'd 0+9
List A B C D E WTB

"The History"

1. The 420 to 450 MHz spectrum has had a "coexisting" nature between the government's military users and the Amateur Radio Service since the latter part of the 1940's. This fifty-year working relationship has proven to be mutually beneficial for both. From time to time, other government entities have functioned within this spectrum without adverse impact on all concerned. Prior to the government's use of the 420 to 450 MHz spectrum, The Amateur Radio Service was the "PRIMARY" user.

2. Amateurs have a long and proud history of supporting the U.S. military. In World War One, it was the early pioneering Amateurs that provided the manpower and equipment for the military's radio communication needs. Again, during World War Two, the Amateur Radio operators provided the extensive pool of trained operators and technicians. The Amateur Radio Service has been a major medium, not only providing skilled operators and technicians, but, in addition, was a vehicle for those with innovation that pioneered many inventions and concepts, much to the benefit of the military's needs.

3. I only need to point to Mr. Art Collins of Collins Radio, Cedar Rapids, Iowa, as a prime example of an Amateur Radio operator who used his hobby as a basis for innovation and advancement of the radio arts at a time when the military and the country had pressing needs. Mr. Collins is not alone, many Amateur Radio Operators have provided their personal time to their own advancement that has benefitted society in ways that are too numerous to list.

4. However, one other major area needs to be mentioned. After the U.S.S.R. put Sputnik, their first satellite, into orbit, the U.S. responded with their own. This was a race for dominance and military might. The commercial world was eager to take Uncle Sam's money, but it would be many years before the civilian commercial world would really see the benefit of sending their own satellites into space. The Amateur Radio Community, on the other hand, recognized the benefit of this technology and its' ability to bring together peoples of other nations in a way that would promote international good will. This effort was achieved right on the heels of the military's rush to space. Again, there was a symbiotic relationship between the Amateur Radio Community and the military aerospace industry. Today, the Amateur Radio service plays an important role in the U.S. space efforts, both afar and particularly close to home via SAREX

(The *S*huttle *A*mateur *R*adio *EX*periment) program. A majority of the primary communications with these Amateur satellites are carried out in the 430 to 440 MHz spectrum.

5. The 420 to 450 MHz spectrum has been in heavy use by the Amateur Radio Service since the 1960's. By the early part of the 1970's (prior to 1973), Los Angeles and San Diego areas of Southern California, had in excess of 200 remotely controlled base stations on remote mountain sites, of which many were interlinked to provide a very wide area communication network. Today, one of these networks has expanded to include connections North into Oregon and Washington state and Eastward to Utah and down South to Texas. The primary communications backbone for this infrastructure is linking channels in the 420 to 430 MHz range, while the working ends of the systems are in the 440 to 450 MHz range. These stations and their operations were in place and fully functional long before the 1973 "Repeater Docket," which changed the remote systems to "auxiliary" and allowed repeaters to exist. Today those same "in use" channels have doubled and tripled the number of concurrent systems using those channels in an effort to accommodate the influx of Amateur repeater systems that are being put into service.

6. We (the Amateur) could spend pages outlining the many public service virtues of the Amateur Radio Service, but suffice it to say, that well known to the Commission's historians, are the many hours of sacrificing effort by the Amateur Community during times of natural disasters, both within and outside the U.S. territory. These acts occur on an ongoing basis and are sometimes the only means of communications to an affected area. In the arsenal of tools for the Amateur Radio Service, is the aforementioned infrastructure that, today, is an integral element of the Amateur's ability to respond to the emergency needs of both the civilian and military calls to duty.

7. The Amateur Radio Service is not sitting on its' laurels, a group of Amateurs in Arizona have been very busy making history by leading the cutting edge technology in apply digital concepts for use in the Amateur radio environment. The commercial radio environment has used much of these Amateur's efforts without even so much as an honest sign of recognition. Yet this effort to "tinker and experiment," strives forward exceeding new boundaries and providing yet new ways for the benefit of the commercial industry and society. One of the major parts of the spectrum used by the Amateurs for this digital technology is the 420 to 440 MHz segment.

8. Finally, as the Commission works through all the issues with refarming and the like, some factions of the commercial world have no interest or concern in preserving an environment that fosters an interest in the sciences. There is an alarming decline in the educational level of the younger generations, with the math and sciences taking a back seat to other areas of interest. This decline will have a serious impact on this country's ability to stay ahead in the increasing rush to technology. Amateur Radio has the ability to capture the younger generations, while they are still impressionable, and provide a mechanism through which an interest in the sciences could foster. The "Radio Art" is not just the "mere act" of talking over the radio, indeed, it encompasses many forms of worthwhile personal growth. Communicating across a wider spectrum of the world's population greatly increases one's speech, thought and verbalizing skills. Contacting and conversing with different parts of the world promotes an interest in geography. The U.S. population is sorely in need of some serious geography lessons. Most of the younger population cannot identify the state capitals of our own United States, let alone other countries and major cities around the world. The result of the near sighted efforts of commercial concerns would be a curtailment of the benefits that Amateur Radio can provide to the society and eventually those same commercial businesses.

"In Conclusion"

9. There is a finite amount of spectrum available below 1 GHz. The Amateur Radio Service only has four specific small allocations for use between 50 MHz and 1 GHz. Of these four, one segment at 900 MHz is designated as secondary status for the Amateur Service, with Primary status having been given to several types of commercial users. One of these commercial interests uses the segment for automatic vehicle location (AVL) systems. These systems are being developed in the major urbanized areas where, coincidentally, is also the highest concentration of Amateur service operators. In such areas, the history of sharing between Amateurs and commercial users has not been good. In particular, the commercial interests have not shown a willingness to share spectrum with other users. In Southern California, there has been a widely reported effort of one commercial AVL company actively demanding that all secondary use be curtailed, including very low level Part 15 products.

10. The Amateur Service has vast amounts of equipment and time invested in the 420 to 450 MHz segment over the last fifty years. This investment is in constant use throughout this

spectrum segment on a daily basis. Commercial interests want to acquire this segment as "PRIMARY" users, indicating that the Amateur Service could remain as "SECONDARY" users. Current and future channel loading by the Amateur Service would virtually preclude any possible means of sharing with commercial concerns. This is primarily due to that fact that Amateur uses are very similar to the types of operation the commercial interests would use.

11. The cost of efforts within the Amateur Service is, by law, non pecuniary. Specifically, the Amateur Radio Service is prohibited from making money with their communication systems. Unlike the commercial and public safety sector, there are no financial incentives (e.g., sub leasing of channels freed up by spectrum refarming) for Amateurs. The de facto loss of a band is an onerous tax on Amateur Radio operators. These operators would be stuck with investments in unusable radio equipment, such as, but not limited to mobile radios, handheld radios, fixed repeaters, portable repeaters, packet radio equipment, packet radio digipeaters, Amateur Television transmitters, Amateur Television repeaters, and broadband digital data equipment. Should commercial interests acquire entry into the 420 to 450 MHz portion of the spectrum, the losses to the Amateur Service in dollars alone would be easily in the seven (7) figure range, that is, millions of dollars of voluntary investments in equipment. The public's emergency communications infrastructure would lose a valuable resource that cannot be put into terms of mere money alone, but, also in loss to life and property.

12. There is more than ample evidence that the current operational affairs of both the military/government uses and the Amateur Radio Service uses of the 420 to 450 MHz spectrum have coexisted without any significant issues. Specifically, the nature and type of operation of the military/government and that of the Amateur community, in this part of spectrum for the last fifty-years, is clearly and distinctly harmonious. No other type of service has this commingling ability.

"The Proposal"

13. To preserve and to protect the future of the 420 to 450 MHz spectrum for The Amateur Radio Service, and to promote the continuing efforts of achievement, the Federal Communications Commission is requested to return the full "PRIMARY" status of the Amateur Radio Service in the 420 to 450 MHz spectrum segment as "CO-EXISTING" users with the military and other government stations.

Respectfully submitted,

Daniel R. Hicks, Jr., W8MMQ, President

David M. Rogovitz, AA2DW, Executive vice-president

The Radio Society of Central Michigan
4729 Crampton Way
Holt, Michigan 48842-1524
(888) 298-9179

Co-authored by:

William Charles Houlne, WB6BNQ
2732 Grove Street
National City, CA 91950-7605

Date: May 21, 1998